THE INCLEN TRUST INTERNATIONAL

Scoping the Path to Leadership in Health Research in India

EXECUTIVE SUMMARY

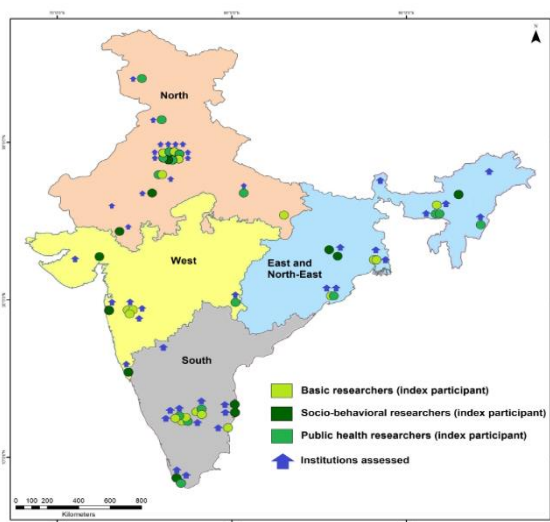
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Background & Objectives

Impactful research and transformative innovation by Indian scientists will be important to propel India to its rightful place in the comity of nations. Career paths of health researchers in India, strategies adopted by them to overcome challenges at different career stages and their skills for leveraging available institutional micro-environment and societal context have many lessons for the younger generation, institutional leadership, policymakers and funding agencies. Leaders from basic sciences, public health, and behavioural sciences were enquired of how and what made them valuable scientific research leaders and analyse the environmental and contextual contributions in their success. Landscaping of presently operational health research and service leadership training programs across India was done to determine the gaps and refine the leadership curriculum for Indian contexts.

Fig A. Location of index participants and institutions

Methods

The Technical Advisory Group (TAG) helped in identifying 47 index participants (acknowledged as 'leaders in health research'), located in 39 institutions spread across 17 states and two union territories. (Fig. A) The research team also spoke to 187 colleagues of these participants, and 43 institutional heads or the officers-in-charge of research in institutions that hosted these leaders. Six eminent researchers based in the Global North with collaborative research experience in India were also interviewed.

Observation

The data showed that leadership is a continuously evolving journey and not a destination. Majorly qualitative data was used to inductively develop two conceptual models that were finalised after a respondent validation workshop. The two models were 1) initial life experience based *'Path to Leadership'* that contributed to the maturation of core characteristics; and 2) the '*Contextual Framework for Leadership in Health Research'* which portrays the blossoming of a researcher into a leader, by leveraging the context-specific skills when placed into the soil of a research-friendly ecosystem. The two models were to be viewed as a continuum in the life cycle of a potential leader.

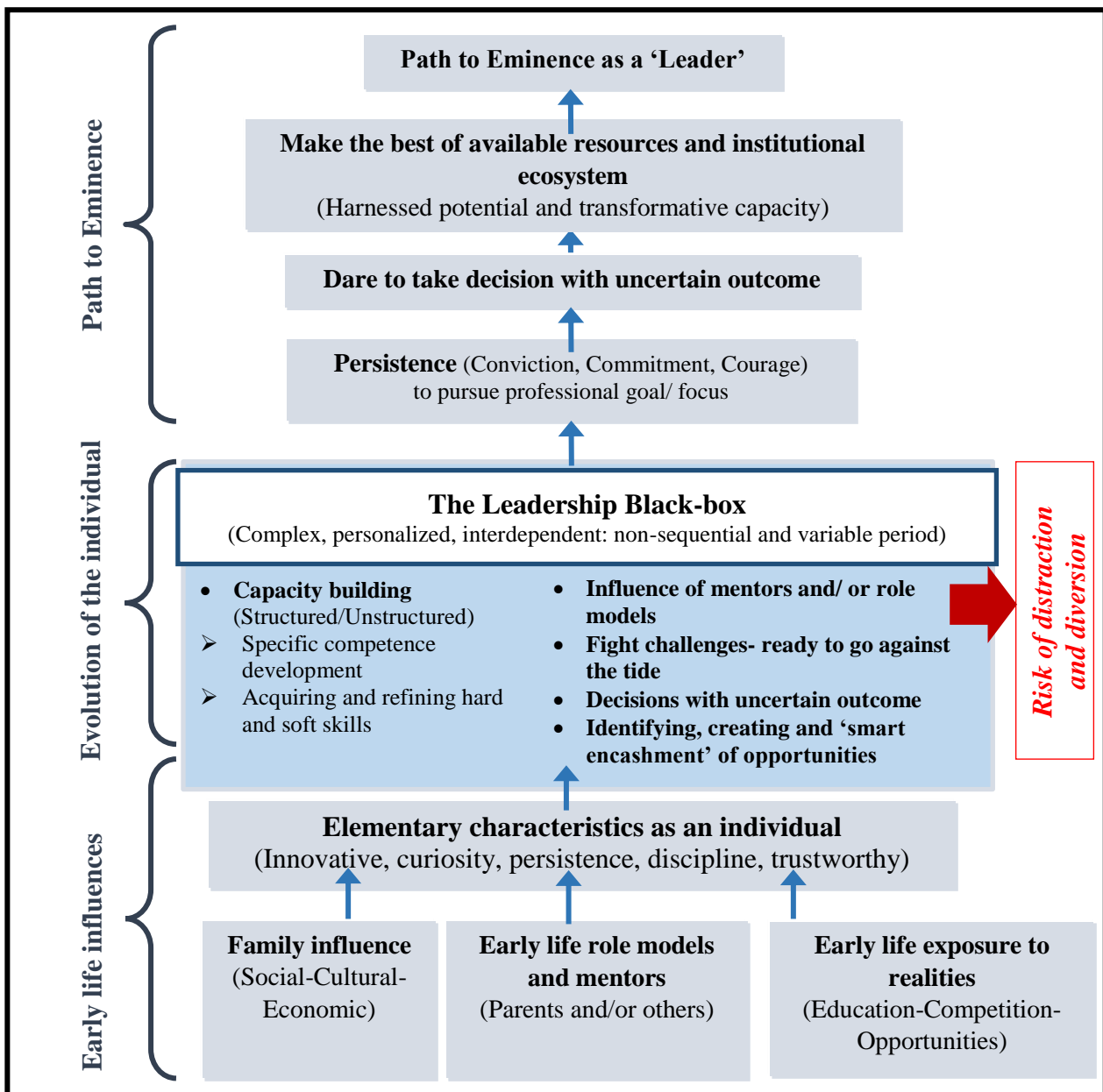### The Path to Research Leadership in India (Figure B)

The path to leadership was not linear; several milestones and events during early life and career, shaped the path of leaders. Every index participant shared highly individualized and variant experiences, especially during their formative years. The path to leadership could be summarized broadly into three phases of life. Early life influences included the impact of family members, initial role models and mentors in the background of the social, cultural, and economic milieu of their homes. These individuals demonstrated distinctive personal attributes of innovation and curiosity, hard work, persistence, and a disciplined approach to life.

Evolution of individuals towards leadership – 'the leadership black box': The data clearly showed that every index participant was exposed to real-life challenges: competition, limitation of doing what they desired, unmet expectations of support from their surroundings and the general social-cultural-economic & political ecosystem. Their experiences were varied, personalized and could not be summarized into a

common coherent structure or framework. And therefore, we termed this phase as *'leadership black-box'*. Common characteristics of potential leaders that emerged during this phase were - their knack of identifying and creating opportunities and thereafter their *'smart encashment'* with persistence and focus to propel themselves on to leadership trajectory. Index participants were frequently set 'against the tide' but dared to take decisions despite no support and uncertain/unknown outcomes. The leaders cited examples of several of their bright peers getting distracted and losing path to eminence due to unknown factors during this phase of their life.

Path to eminence: Almost all the index participants indicated that somewhere along their path of initial exposures and/or 'black-box phase', they discovered a sense of purpose towards their professional lives and focussed on few specific areas. This often set them on path to eminence as research leaders. The index participants searched around for institutions with research friendly ecosystems, but also made best of the available resources without being grouchy. Almost all were keen to constantly enhance their competencies.
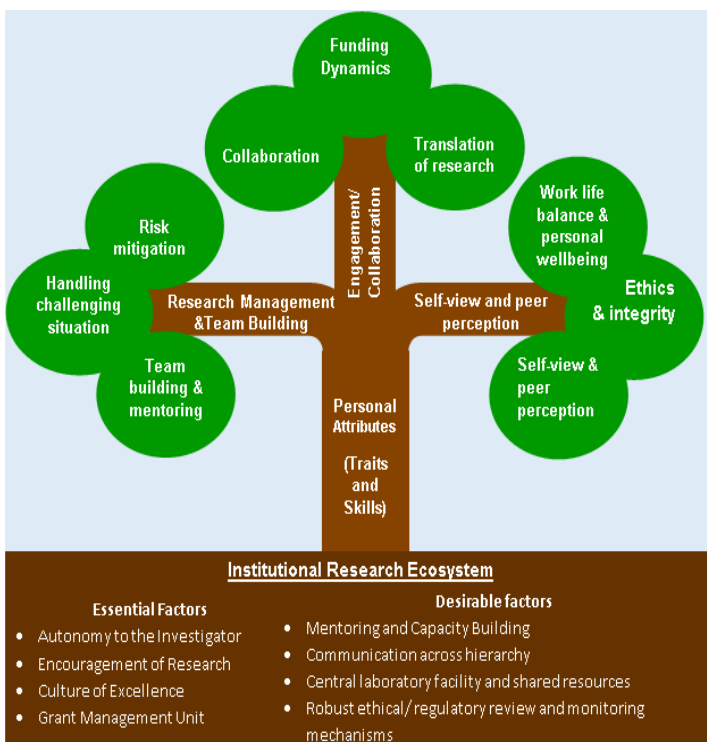
Fig. B: Inductively derived model path to research leadership

The inductively derived contextual framework for leadership in health research in India (Figure C)

Data showed that Indian research leadership required four dimensions: (1) personal traits and competence; (2) research management skills and ability to build strong teams; (3) self-awareness and work-life balance; and (4) engagement and advocacy within and outside the host institutions. Leadership characteristics were complexly inter-related and likely to have positive as well as negative influences on each other in different contexts. A research leadership tree was conceptualized that bore fruit in research facilitating the institutional ecosystem (Figure C). Research friendly institutional ecosystems significantly influenced the challenges to blossom the leadership potential of the individuals. The essential features of a research-friendly institutional ecosystem are (1) intellectual freedom; (2) culture of excellence and healthy competition among peers; (3) research considered as a value addition for individuals and institutions; and (4) presence of a functional grant management office in the institution. Lack of a functional research grant management system has been a consistent gap across institutions in India.

Fig. C: Inductively derived contextual framework for leadership in health research in India

Due to the poor research ecosystem in North East and Central India, research leadership emerged infrequently from these regions of the country. The research leaders evolved and attained a wide range of soft and hard skills through sustained efforts. All had high emotional intelligence, aligned with the social and cultural context of the institution. However, the path to leadership was never perceived to be smooth. Researchers faced challenges in almost every facet of their evolution as leaders. Each had an individual approach towards operating within his/ her team, collaborating, engaging, and negotiating with different stakeholders within and outside the institution. The research also brought forward that not infrequently questions were raised about one's technical competence and team management, their focus on awards and self-recognition, contribution to institutional growth, a habit of over-shadowing the students and team; occasionally aspersions were also cast on their integrity and adherence to ethics. Notwithstanding these challenges, the 'leaders' continued to produce high-quality research, inspired students and younger colleagues and influenced their institutional research ecosystem.

Health Research Leadership Training Programs in India: The exercise identified and analysed 20 leadership training programs – 08 targeted at health researchers and 12 at health service providers/ managers. None of the training programs comprehensively captured all the domains shown in the inductively derived model of this study. The importance of institutional research ecosystem components was missing from all the courses. The exercise revealed imperatives of drawing a contextually relevant curriculum for the leadership training programs in the country.

Conclusion

Indian scientists have demonstrated leadership and remained scientifically and socially relevant in spite of resource constraints, non-availability of the desired institutional research ecosystems, challenges faced at different career stages, and often with no formal leadership training. Currently available health research and service provider leadership programs in India need an overhaul of the curriculum to make these relevant to the context and accelerate the process of building next generation of bio-medical scientific leadership.

Recommendations

1. **Establish an 'ease of doing research' ecosystem at all levels**
   Policy: Advocate with different ministries (Department of Health Research, Indian Council of Medical Research, Department of Biotechnology, Department of Science and Technology, Council of Scientific and Industrial Research, Ministry of Human Resource Development) and donors (national & international) for prioritizing investment to establish research friendly ecosystem. Investments should also address the existing regional and state asymmetries.

   - Regulatory authorities e.g. National Medical Authority (NMA), University Grants Commission (UGC), and Departments within the Ministry of Science & Technology should ensure establishment of enabling research ecosystems.
   - Support establishment of functional research grant management systems in health universities, medical colleges and research institutions.
   - Sensitization of principals, directors, vice chancellors and other institutional leadership across the country to value research in their institutions, encourage intellectual freedom and inculcate a culture of excellence for healthy internal competition.
   - Support research leadership training programs

2. **Restructured & contextualized research leadership training programs for Indian bio-medical scientists:** An outline of the draft contextualized curriculum for leadership training (3-day short & 10-day long duration) is proposed addressing the domains of the inductively derived conceptual framework of the research leadership in India.

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